

Appn No. 09/922,275
Amdt. Dated May 06, 2004
Response to Office action of March 31, 2004

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REMARKS/ARGUMENTS

The Applicant has further amended the independent claims by introducing further limiting features. The Applicant respectfully submits that the amendments to the claim set are fully supported by the originally filed specification.

Independent claims 1, 2 and 7 have been amended to include the limiting features of both of previous dependent claims 4 and 6. Furthermore, independent claims 1, 2 and 7 have been amended to refer to "a microcontroller, in which the processor circuitry is in the form of VLIW processor circuitry" to address to Examiner's concerns with the use of the previous language "microcontroller having VLIW processor circuitry".

Previous dependent claims 4 and 6 have been canceled.

In light of the claim amendments it is respectfully submitted that the independent claims now define patentable subject matter. The Examiner previously cited a combination of Cyman *et al.* (Cyman), Granzow and Lloyd to find certain claims obvious. It is respectfully submitted that there is no motivation for the skilled person to combine these documents, and furthermore, if the documents were found to be collective prior art, the skilled person is not taught, suggested or motivated to arrive at the claimed invention as defined by the amended claims.

These prior art documents all propagate the idea that a microcontroller should be provided separately to print head interface circuitry so that components are interchangeable which permits manufacturers to avoid the necessity of having to fabricate a task-specific microcontroller. The combination of prior art documents do not teach or suggest a microcontroller that incorporates print head interface circuitry provided on a wafer substrate together with processor circuitry with the additional features defined in claims 1, 2 and 7.

Referring to Lloyd, the pulse generator 13 is not print head interface circuitry. In the present claims, print head interface circuitry is positioned on a wafer substrate and is connected between processor circuitry and the print head, the print head interface circuitry configured to facilitate communication between the processor circuitry and the print head.

The pulse generator 13 of Lloyd does not act as print head interface circuitry that defines a number of registers for storing clocking and control information to be received by the print head in accordance with a predetermined algorithm. Pulse controller 19 transfers values to pulse generator 13 and converts the program information it receives from test generator 23 into control signals which are transmitted from its pulse parameter value output port PPV along bus 33 to pulse delay D, pulse width W and pulse amplitude A input ports of the pulse generator 13.

This does not disclose registers in the pulse generator 13 for "storing clocking and control information to be received by the print head in accordance with a predetermined algorithm" as required in the present claims 1, 2 and 7.

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CONCLUSION

In view of the foregoing, it is respectfully requested that the Examiner reconsider and withdraw the rejection under 35 USC §103. The present application is believed to be in condition for allowance. Accordingly, the Applicant respectfully requests a Notice of Allowance of all the claims presently under examination.

Very respectfully,

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